

## LIST OF CLAIMS / AMENDMENTS

Claim 24 was previously canceled.

Please amend claims 1, 17-18, 35-36, 46, and 55 as shown herein.

Claims 1-23 and 25-58 are pending and are listed following:

**1. (currently amended)** An audio generation system, comprising:  
an audio processing component configured to generate an audio rendition corresponding to audio wave data derived from multiple audio wave data sources, the audio rendition including an audible playback according to playback instructions;

audio wave track components configured to generate the playback instructions that are routed to the audio processing component to initiate the audio rendition being generated; ~~and~~

a segment component configured to play the audio wave track components to generate the playback instructions for the audio rendition; and

an audio rendition manager that includes the audio processing component which generates the audio rendition as streams of audio wave data, the audio rendition manager further including audio buffers to process the audio wave data, and logical buses that each correspond to one of the audio buffers, where each of the multiple streams of audio wave data are assigned to one or more of the logical buses such that a logical bus receives one or more of the streams of audio wave data from the audio processing component and routes the streams of audio wave data to the corresponding audio buffer.

1           2.     **(original)**     An audio generation system as recited in claim 1,  
2 further comprising MIDI track components configured to generate event  
3 instructions that are routed to the audio processing component to initiate a second  
4 audio rendition corresponding to MIDI audio data, and wherein the segment  
5 component is further configured to play one or more of the MIDI track  
6 components to generate the event instructions.

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8           3.     **(previously presented)**     An audio generation system as recited in  
9 claim 1, further comprising a segment state that includes programming references  
10 to each of the audio wave track components, the segment state configured to  
11 initiate that the audio wave track components generate the playback instructions.

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13           4.     **(previously presented)**     An audio generation system as recited in  
14 claim 1, further comprising one or more segment states that include programming  
15 references to each of the audio wave track components, the one or more segment  
16 states configured to initiate that the audio wave track components generate the  
17 playback instructions such that the audio processing component generates one or  
18 more audio renditions corresponding to the audio wave data.

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20           5.     **(previously presented)**     An audio generation system as recited in  
21 claim 1, further comprising a performance manager that includes one or more  
22 segment states, each segment state including programming references to each of  
23 the audio wave track components, and each segment state configured to initiate  
24 that the audio wave track components generate the playback instructions.  
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1  
2       6.    **(previously presented)**   An audio generation system as recited in  
3 claim 1, further comprising one or more performance managers that each include a  
4 segment state having programming references to each of the audio wave track  
5 components, the segment state configured to initiate that the audio wave track  
6 components generate the playback instructions.

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8       7.    **(previously presented)**   An audio generation system as recited in  
9 claim 1, wherein the audio processing component is further configured to receive  
10 the playback instructions from the audio wave track components.

11  
12       8.    **(previously presented)**   An audio generation system as recited in  
13 claim 1, wherein the audio processing component is a synthesizer component  
14 configured to receive the audio wave data from the multiple audio wave data  
15 sources, and is further configured to generate the audio rendition in response to the  
16 playback instructions.

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18       9.    **(previously presented)**   An audio generation system as recited in  
19 claim 1, further comprising at least a second audio processing component  
20 configured to receive the playback instructions from the audio wave track  
21 components, the second audio processing component further configured to  
22 generate a second audio rendition corresponding to the audio wave data.  
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1           **10. (original)**   An audio generation system as recited in claim 1,  
2 wherein the audio wave track components are further configured to maintain the  
3 audio wave data as an embedded audio wave data source.

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5           **11. (original)**   An audio generation system as recited in claim 1,  
6 wherein the segment component is further configured to maintain the audio wave  
7 data as an embedded audio wave data source.

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9           **12. (previously presented)**   An audio generation system as recited in  
10 claim 1, wherein the audio wave track components are further configured to  
11 randomly select a variation of the audio wave data such that the segment  
12 component plays the audio wave track components that correspond to the variation  
13 selection.

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15           **13. (previously presented)**   An audio generation system as recited in  
16 claim 1, wherein the audio wave track components include programming  
17 references to variations of the audio wave data, and wherein the audio wave track  
18 components are further configured to randomly select a variation of the audio  
19 wave data such that the segment component plays the audio wave track  
20 components that correspond to the variation.

1           **14. (previously presented)** An audio generation system as recited in  
2 claim 1, wherein the segment component is a programming object having an  
3 interface that is callable by a software component of the audio generation system  
4 to initiate that the segment component play the audio wave track components.

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6           **15. (previously presented)** An audio generation system as recited in  
7 claim 1, wherein the segment component is a programming object having an  
8 interface that is callable by a performance manager to initiate that the segment  
9 component play the audio wave track components, and wherein the audio wave  
10 track components are programming objects each having an interface that is  
11 callable by the segment component to initiate that the audio wave track  
12 components generate the playback instructions.  
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1           **16. (original)** An audio generation system as recited in claim 1,  
2 wherein the audio wave track components generate the playback instructions to  
3 include one or more of the following:

4           one or more programming references to the audio wave data;

5           a start time to initiate the audio rendition being generated;

6           a volume parameter that is a decibel gain applied to the audio wave data;

7           a pitch parameter that identifies an amount that the audio wave data is to be  
8 transposed;

9           a variation parameter that identifies whether the audio wave data  
10 corresponding to a particular audio wave track component is to be played;

11           a duration parameter that identifies how long audio wave data  
12 corresponding to a particular audio wave track component will be played; and

13           a stop play parameter that stops the audio rendition from being generated.  
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1           17. (currently amended)     An audio generation system as recited in  
2 claim 1, wherein the audio wave track components are implemented as data  
3 structures associated with the segment component, an individual data structure for  
4 an audio wave track component including one or more of the following:

5           one or more programming references that identify the audio wave data;

6           a start time that identifies when the audio wave track component is played  
7 relative to other audio wave track components;

8           a volume parameter that is a decibel gain applied to the audio wave data;

9           a pitch parameter that identifies an amount that the audio wave data is to be  
10 transposed;

11          a variation parameter that identifies whether the audio wave data  
12 corresponding to a particular audio wave track component is to be played; and

13          a duration parameter that identifies how long audio wave data  
14 corresponding to a particular audio wave track component will be played.  
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1       **18. (currently amended)**     An audio generation system, comprising:  
2       a MIDI track component configured to generate event instructions for MIDI  
3       audio data received from a MIDI audio data source;

4       an audio wave track component configured to generate playback  
5       instructions for audio wave data received from multiple audio wave data sources;

6       a segment component configured to play the MIDI track component to  
7       generate the event instructions, and further configured to play the audio wave  
8       track component to generate the playback instructions; and

9       an audio processing component configured to receive the event instructions  
10      and the playback instructions, and further configured to generate an audio  
11      rendition that is an audible playback of the MIDI audio data and the audio wave  
12      data; and

13      an audio rendition manager that includes the audio processing component  
14      which generates the audio rendition as streams of audio wave data, the audio  
15      rendition manager further including audio buffers to process the audio wave data,  
16      and logical buses that each correspond to one of the audio buffers, where each of  
17      the multiple streams of audio wave data are assigned to one or more of the logical  
18      buses such that a logical bus receives one or more of the streams of audio wave  
19      data from the audio processing component and routes the streams of audio wave  
20      data to the corresponding audio buffer.

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22       **19. (original)**     An audio generation system as recited in claim 18,  
23       wherein the segment component includes the MIDI track component and the audio  
24       wave track component.  
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2       **20. (original)**   An audio generation system as recited in claim 18,  
3 wherein the segment component includes the MIDI track component, the audio  
4 wave track component, and one or more of the following:

5               one or more additional MIDI track components configured to generate  
6 additional event instructions for additional MIDI audio data received from one or  
7 more MIDI audio data sources; and

8               one or more additional audio wave track components configured to  
9 generate additional playback instructions for additional audio wave data  
10 maintained in one or more audio wave data sources.

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12       **21. (original)**   An audio generation system as recited in claim 18,  
13 further comprising a segment state that includes a first programming reference to  
14 the MIDI track component and a second programming reference to the audio wave  
15 track component, the segment state configured to initiate that the MIDI track  
16 component generate the event instructions, and further configured to initiate that  
17 the audio wave track component generate the playback instructions.

1           **22. (original)** An audio generation system as recited in claim 18,  
2 further comprising one or more segment states that include a first programming  
3 reference to the MIDI track component and a second programming reference to  
4 the audio wave track component, the one or more segment states configured to  
5 initiate that the MIDI track component generate the event instructions, and further  
6 configured to initiate that the audio wave track component generate the playback  
7 instructions such that the audio processing component generates one or more  
8 audio renditions corresponding to the MIDI audio data and to the audio wave data.

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10           **23. (original)** An audio generation system as recited in claim 18,  
11 further comprising a performance manager that includes one or more segment  
12 states, each segment state including a first programming reference to the MIDI  
13 track component and a second programming reference to the audio wave track  
14 component, the one or more segment states configured to initiate that the MIDI  
15 track component generate the event instructions, and further configured to initiate  
16 that the audio wave track component generate the playback instructions.

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18           **24. (canceled)**

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20           **25. (previously presented)** An audio generation system as recited in  
21 claim 18, wherein the audio processing component is a synthesizer component  
22 configured to receive the audio wave data from the multiple audio wave data  
23 sources.  
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1           **26. (previously presented)** An audio generation system as recited in  
2 claim 18, further comprising at least a second audio processing component  
3 configured to:

4           receive the audio wave data from the multiple audio wave data sources;

5           receive the event instructions and the playback instructions; and

6           generate a second audio rendition that is a second audible playback of the  
7 MIDI audio data and to the audio wave data.

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9           **27. (original)** An audio generation system as recited in claim 18,  
10 wherein the audio wave track component is further configured to maintain the  
11 audio wave data as an embedded audio wave data source.

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13           **28. (original)** An audio generation system as recited in claim 18,  
14 wherein the segment component is further configured to maintain the audio wave  
15 data as an embedded audio wave data source.

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17           **29. (original)** An audio generation system as recited in claim 18,  
18 wherein the audio wave track component is further configured to randomly select  
19 a variation of the audio wave data when the audio wave track component is  
20 played.

1           **30. (original)** An audio generation system as recited in claim 18,  
2 wherein the audio wave track component is further configured to randomly select  
3 a variation of the audio wave data such that the segment component plays audio  
4 wave data in the audio wave track component that corresponds to the variation  
5 selection.

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7           **31. (previously presented)** An audio generation system as recited in  
8 claim 18, wherein the audio wave track component includes programming  
9 references to variations of the audio wave data maintained in the multiple audio  
10 wave data sources, and wherein the audio wave track component is further  
11 configured to randomly select a variation of the audio wave data when the audio  
12 wave track component is played.

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14           **32. (original)** An audio generation system as recited in claim 18,  
15 wherein the segment component is a programming object having an interface that  
16 is callable by a software component of the audio generation system to initiate that  
17 the segment component play the MIDI track component and play the audio wave  
18 track component.

1           **33. (original)** An audio generation system as recited in claim 18,  
2 wherein:

3           the segment component is a programming object having an interface that is  
4 callable by a performance manager to initiate that the segment component play the  
5 MIDI track component and play the audio wave track component;

6           the MIDI track component is a programming object having an interface that  
7 is callable by the segment component to initiate that the MIDI track component  
8 generate the event instructions; and

9           the audio wave track component is a programming object having an  
10 interface that is callable by the segment component to initiate that the audio wave  
11 track component generate the playback instructions.

1           **34. (original)**   An audio generation system as recited in claim 18,  
2 wherein the audio wave track component generates the playback instructions to  
3 include one or more of the following:

4           one or more programming references to the audio wave data;

5           a start time to initiate the audio rendition being generated;

6           a volume parameter that is a decibel gain applied to the audio wave data;

7           a pitch parameter that identifies an amount that the audio wave data is to be  
8 transposed;

9           a variation parameter that identifies whether the audio wave data  
10 corresponding to the audio wave track component is to be played;

11           a duration parameter that identifies how long audio wave data  
12 corresponding to the audio wave track component will be played; and

13           a stop play parameter that stops the audio rendition from being generated.  
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1           **35. (currently amended)**     An audio generation system as recited in  
2 claim 18, wherein the audio wave track component is implemented as a data  
3 structure associated with the segment component, the data structure including one  
4 or more of the following:

5           one or more programming references that identify the audio wave data;  
6           a start time that identifies when the audio wave track component is played  
7 relative to the MIDI track component and to other audio wave track components;  
8           a volume parameter that is a decibel gain applied to the audio wave data;  
9           a pitch parameter that identifies an amount that the audio wave data is to be  
10 transposed;

11           a variation parameter that identifies whether the audio wave data  
12 corresponding to the audio wave track component is to be played; and

13           a duration parameter that identifies how long audio wave data  
14 corresponding to the audio wave track component will be played.  
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1           **36. (currently amended)**     A method, comprising:

2           initiating a segment component to play audio wave track components that  
3           generate playback instructions for audible playback of an audio rendition;

4           generating the playback instructions for audio wave data with the audio  
5           wave track components, the audio wave data derived from multiple audio wave  
6           data sources; and

7           communicating the playback instructions to an audio processing component  
8           that generates the audio rendition corresponding to the audio wave data; and

9           instantiating an audio rendition manager that includes the audio processing  
10          component which generates the audio rendition as streams of audio wave data, the  
11          audio rendition manager further including audio buffers to process the audio wave  
12          data, and logical buses that each correspond to one of the audio buffers, where  
13          each of the multiple streams of audio wave data are assigned to one or more of the  
14          logical buses such that a logical bus receives one or more of the streams of audio  
15          wave data from the audio processing component and routes the streams of audio  
16          wave data to the corresponding audio buffer.

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18          **37. (previously presented)**     A method as recited in claim 36, further  
19          comprising routing the audio wave data to the audio processing component from  
20          the multiple audio wave data sources.

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22          **38. (previously presented)**     A method as recited in claim 36, further  
23          comprising routing the audio wave data to the audio processing component from  
24          the multiple audio wave data sources before generating the playback instructions.  
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1           **39. (previously presented)** A method as recited in claim 36, further  
2 comprising instantiating a segment state that initiates the segment component  
3 playing the audio wave track components.

4  
5           **40. (previously presented)** A method as recited in claim 36, further  
6 comprising instantiating multiple segment states that each initiate the segment  
7 component playing the audio wave track components, and wherein:

8           generating the playback instructions includes generating playback  
9 instructions for each segment state; and

10           communicating the playback instructions includes communicating the  
11 playback instructions for each segment state to the audio processing component  
12 such that the audio processing component generates multiple audio renditions  
13 corresponding to the multiple segment states.

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15           **41. (previously presented)** A method as recited in claim 36, further  
16 comprising selecting a variation number corresponding to one or more variations  
17 of the audio wave data, and further comprising playing the audio wave track  
18 components corresponding to audio wave data associated with the variation  
19 number.

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21           **42. (original)** A method as recited in claim 36, wherein  
22 communicating the playback instructions includes communicating the playback  
23 instructions to multiple audio processing components that each generate an audio  
24 rendition corresponding to the audio wave data.  
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2       **43. (original)** A method as recited in claim 36, further comprising:  
3       initiating the segment component to play one or more MIDI track  
4       components;

5       generating event instructions for MIDI audio data with the one or more  
6       MIDI track components; and

7       wherein communicating the playback instructions includes communicating  
8       the event instructions to the audio processing component to generate the audio  
9       rendition corresponding to the audio wave data and to the MIDI audio data.

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11       **44. (original)** One or more computer-readable media comprising  
12       computer-executable instructions that, when executed, direct an audio generation  
13       system to perform the method of claim 36.

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15       **45. (original)** One or more computer-readable media comprising  
16       computer-executable instructions that, when executed, direct an audio generation  
17       system to perform the method of claim 43.

1           **46. (currently amended)**     A method, comprising:  
2           generating playback instructions for audio wave data with an audio wave  
3           track component;  
4           generating event instructions for MIDI audio data with a MIDI track  
5           component;  
6           communicating the playback instructions and the event instructions to an  
7           audio processing component that generates an audio rendition which is an audible  
8           playback of the audio wave data and the MIDI audio data; and  
9           instantiating an audio rendition manager that includes the audio processing  
10          component which generates the audio rendition as streams of audio wave data, the  
11          audio rendition manager further including audio buffers to process the audio wave  
12          data, and logical buses that each correspond to one of the audio buffers, where  
13          each of the multiple streams of audio wave data are assigned to one or more of the  
14          logical buses such that a logical bus receives one or more of the streams of audio  
15          wave data from the audio processing component and routes the streams of audio  
16          wave data to the corresponding audio buffer.

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18          **47. (original)**     A method as recited in claim 46, further comprising  
19          requesting an allocation of logical communication paths in the audio processing  
20          component to route the playback instructions and the event instructions.

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22          **48. (previously presented)**     A method as recited in claim 46, further  
23          comprising routing the audio wave data to the audio processing component from  
24          multiple audio wave data sources before communicating the playback instructions.  
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2       **49. (original)** A method as recited in claim 46, further comprising  
3 initiating a segment component to play the audio wave track component and play  
4 the MIDI track component such that the audio wave track component generates  
5 the playback instructions and the MIDI track component generates the event  
6 instructions.

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8       **50. (original)** A method as recited in claim 49, further comprising  
9 instantiating a segment state that initiates the segment component playing the  
10 audio wave track component and the MIDI track component.

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12       **51. (original)** A method as recited in claim 46, further comprising  
13 selecting a variation number corresponding to one or more variations of the audio  
14 wave data, and wherein generating the playback instructions includes generating  
15 the playback instructions for audio wave data associated with the variation  
16 number.

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18       **52. (previously presented)** A method as recited in claim 46, wherein  
19 communicating the playback instructions and the event instructions includes  
20 communicating the playback instructions and the event instructions to multiple  
21 audio processing components that each generate an audio rendition that is an  
22 audible playback of the audio wave data and to the MIDI audio data.  
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1           **53. (original)** One or more computer-readable media comprising  
2 computer-executable instructions that, when executed, direct an audio generation  
3 system to perform the method of claim 46.

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5           **54. (original)** One or more computer-readable media comprising  
6 computer-executable instructions that, when executed, direct an audio generation  
7 system to perform the method of claim 49.

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9           **55. (currently amended)** One or more computer-readable media  
10 comprising computer-executable instructions that, when executed, direct an audio  
11 generation system to perform a method, comprising:

12           playing one or more audio wave track components;

13           playing one or more MIDI track components;

14           generating playback instructions for audio wave data with the one or more  
15 audio wave track components;

16           generating event instructions for MIDI audio data with the one or more  
17 MIDI track components; and

18           communicating the playback instructions and the event instructions to an  
19 audio processing component that generates an audio rendition corresponding to the  
20 audio wave data and to the MIDI audio data; and

1 instantiating an audio rendition manager that includes the audio processing  
2 component which generates the audio rendition as streams of audio wave data, the  
3 audio rendition manager further including audio buffers to process the audio wave  
4 data, and logical buses that each correspond to one of the audio buffers, where  
5 each of the multiple streams of audio wave data are assigned to one or more of the  
6 logical buses such that a logical bus receives one or more of the streams of audio  
7 wave data from the audio processing component and routes the streams of audio  
8 wave data to the corresponding audio buffer.

9  
10 **56. (original)** One or more computer-readable media as recited in  
11 claim 55, wherein the method further comprises routing the audio wave data to the  
12 audio processing component from one or more audio wave data sources.

13  
14 **57. (original)** One or more computer-readable media as recited in  
15 claim 55, wherein the method further comprises initiating a segment component to  
16 play the one or more audio wave track components and play the one or more MIDI  
17 track components.

18  
19 **58. (original)** One or more computer-readable media as recited in  
20 claim 57, wherein the method further comprises instantiating a segment state that  
21 initiates the segment component to play the one or more audio wave track  
22 components and play the one or more MIDI track components.